Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	May 10	PROUSDDR now available on STN
NEWS 4	May 19	PROUSDDR: One FREE connect hour, per account, in both May and June 2004
NEWS 5	May 12	EXTEND option available in structure searching
NEWS 6	May 12	Polymer links for the POLYLINK command completed in REGISTRY
NEWS 7	May 17	FRFULL now available on STN
NEWS 8	May 27	New UPM (Update Code Maximum) field for more efficient patent SDIs in CAplus
NEWS 9	May 27	CAplus super roles and document types searchable in REGISTRY
NEWS 10	May 27	Explore APOLLIT with free connect time in June 2004
NEWS 11	Jun 22	STN Patent Forums to be held July 19-22, 2004
NEWS 12	Jun 28	Additional enzyme-catalyzed reactions added to CASREACT
NEWS 13	Jun 28	ANTE, AQUALINE, BIOENG, CIVILENG, ENVIROENG, MECHENG, and WATER from CSA now available on STN(R)

NEWS EXPRESS	MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 12:35:23 ON 29 JUN 2004

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 12:35:51 ON 29 JUN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file

provided by InfoChem.

STRUCTURE FILE UPDATES: 28 JUN 2004 HIGHEST RN 700803-86-7
DICTIONARY FILE UPDATES: 28 JUN 2004 HIGHEST RN 700803-86-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

```
=> e isophorone diisocyanate/cn
E1            1     ISOPHORONE DIAMINE-VESTICOAT UT 647 COPOLYMER/CN
E2            1     ISOPHORONE DIICYANATE-UPICACOAT GV 150 COPOLYMER/CN
E3            1 --> ISOPHORONE DIISOCYANATE/CN
E4            1     ISOPHORONE DIISOCYANATE 2-HYDROXYPROPYL ACRYLATE (1:2) ADDUC
                    T/CN
E5            1     ISOPHORONE DIISOCYANATE ADDUCT WITH 2-ETHYLHEXANOL AND N,N-D
                    IMETHYLAMINOETHANOL/CN
E6            1     ISOPHORONE DIISOCYANATE ADDUCT WITH TRIETHYLENE GLYCOL MONOM
                    ETHYL ETHER AND N,N-DIMETHYLAMINOETHANOL/CN
E7            1     ISOPHORONE DIISOCYANATE CAPROLACTAM ADDUCT (1:2)/CN
E8            1     ISOPHORONE DIISOCYANATE CYCLIC TRIMER/CN
E9            1     ISOPHORONE DIISOCYANATE DIUREA WITH OCTADECYLAMINE/CN
E10           1     ISOPHORONE DIISOCYANATE DIURETHANE WITH 4-OCTYLPHENOL ETHOXY
                    LATE/CN
E11           1     ISOPHORONE DIISOCYANATE DIURETHANE WITH OCTADECYL ALCOHOL/CN
E12           1     ISOPHORONE DIISOCYANATE DIURETHANE WITH TETRAHYDROABIETYL AL
                    COHOL/CN

=> e3
L1            1 "ISOPHORONE DIISOCYANATE"/CN

=> d l1

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   4098-71-9  REGISTRY
CN   Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl- (9CI)  (CA
     INDEX NAME)
OTHER CA INDEX NAMES:
CN   Isocyanic acid, methylene(3,5,5-trimethyl-3,1-cyclohexylene) ester (7CI,
     8CI)
OTHER NAMES:
CN   1,3,3-Trimethyl-1-(isocyanatomethyl)-5-isocyanatocyclohexane
CN   1-(Isocyanatomethyl)-5-isocyanato-1,3,3-trimethylcyclohexane
CN   1-Isocyanato-3,3,5-trimethyl-5-(isocyanatomethyl)cyclohexane
CN   1-Isocyanato-3-(isocyanatomethyl)-3,5,5-trimethylcyclohexane
CN   1-Isocyanato-5-(isocyanatomethyl)-3,3,5-trimethylcyclohexane
CN   3,3,5-Trimethyl-5-(isocyanatomethyl)cyclohexyl isocyanate
CN   3-(Isocyanatomethyl)-3,5,5-trimethylcyclohexyl isocyanate
CN   5-Isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane
CN   IPDI
CN   Isophorone diisocyanate
FS   3D CONCORD
DR   124961-52-0, 63793-40-8, 129212-17-5, 101701-80-8, 102771-74-4,
     105439-02-9, 66708-07-4, 50974-99-7, 74091-63-7, 74520-92-6, 70936-97-9,
```

146282-59-9, 146665-38-5, 149579-36-2, 88778-74-9, 26602-93-7, 52985-93-0, 110648-35-6, 111093-75-5, 194936-84-0

MF C12 H18 N2 O2

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DIOGENES, DIPPR*, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

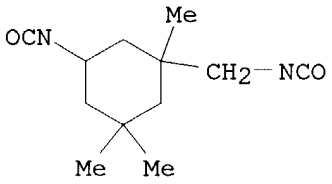
DT.CA CAplus document type: Conference; Journal; Patent; Report

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4334 REFERENCES IN FILE CA (1907 TO DATE)
3235 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
4340 REFERENCES IN FILE CAPLUS (1907 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	8.30	8.51

FILE 'REGISTRY' ENTERED AT 12:38:33 ON 29 JUN 2004

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 28 JUN 2004 HIGHEST RN 700803-86-7

DICTIONARY FILE UPDATES: 28 JUN 2004 HIGHEST RN 700803-86-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

```
=> bromine
L2         2357 BROMINE

=> isocyanate
          17997 ISOCYANATE
              5 ISOCYANATES
L3        17997 ISOCYANATE
                (ISOCYANATE OR ISOCYANATES)

=> l2 and l3
L4            7 L2 AND L3

=> d l4 1-7 ti
'TI' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual
fields or predefined formats.  The predefined substance formats
are:  (RN = CAS Registry Number)

REG     - RN
SAM     - Index Name, MF, and structure - no RN
FIDE    - All substance data, except sequence data
IDE     - FIDE, but only 50 names
SQIDE   - IDE, plus sequence data
SQIDE3  - Same as SQIDE, but 3-letter amino acid codes are used
SQD     - Protein sequence data, includes RN
SQD3    - Same as SQD, but 3-letter amino acid codes are used
SQN     - Protein sequence name information, includes RN

CALC    - Table of calculated properties
EPROP   - Table of experimental properties
PROP    - EPROP and CALC

Any CA File format may be combined with any substance format to
obtain CA references citing the substance.  The substance formats
must be cited first.  The CA File predefined formats are:

ABS  -- Abstract
APPS -- Application and Priority Information
BIB  -- CA Accession Number, plus Bibliographic Data
CAN  -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND  -- Index Data
IPC  -- International Patent Classification
PATS -- PI, SO
STD  -- BIB, IPC, and NCL
```

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.
The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):file reg
'FILE' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG - RN
SAM - Index Name, MF, and structure - no RN
FIDE - All substance data, except sequence data
IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD - Protein sequence data, includes RN
SQD3 - Same as SQD, but 3-letter amino acid codes are used
SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties
EPROP - Table of experimental properties
PROP - EPROP and CALC

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

ABS -- Abstract
APPS -- Application and Priority Information
BIB -- CA Accession Number, plus Bibliographic Data
CAN -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND -- Index Data
IPC -- International Patent Classification
PATS -- PI, SO
STD -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.
The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):end

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	9.70	18.21

FILE 'CAPLUS' ENTERED AT 12:39:45 ON 29 JUN 2004

FILE COVERS 1907 - 29 Jun 2004 VOL 141 ISS 1
FILE LAST UPDATED: 28 Jun 2004 (20040628/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> bromine
47316 BROMINE
152 BROMINES
L5 47408 BROMINE
(BROMINE OR BROMINES)

=> isocyanate
58621 ISOCYANATE
20235 ISOCYANATES
L6 66442 ISOCYANATE
(ISOCYANATE OR ISOCYANATES)

=> l5 and l6
L7 197 L5 AND L6

```
=> l5(l)l6
L8          67 L5(L)L6

=> phosgene
         12345 PHOSGENE
            35 PHOSGENES
L9       12353 PHOSGENE
                 (PHOSGENE OR PHOSGENES)

=> l7 and l9
L10         11 L7 AND L9

=> d l19 1-11 ti
L19 NOT FOUND
The L-number entered has not been defined in this session, or it
has been deleted.  To see the L-numbers currently defined in this
session, enter DISPLAY HISTORY at an arrow prompt (=>).

=> d l10 1-11 ti

L10  ANSWER 1 OF 11  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Integrated process for preparing phosgene and from it
     isocyanates

L10  ANSWER 2 OF 11  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Threshold quantity criteria for risk management programs: recommendations
     for toxic releases

L10  ANSWER 3 OF 11  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   The development of acute exposure guideline levels for hazardous
     substances

L10  ANSWER 4 OF 11  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Accidental release prevention

L10  ANSWER 5 OF 11  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   The Use of Benchmark Dose Methodology with Acute Inhalation Lethality Data

L10  ANSWER 6 OF 11  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Incorporation of potential for multi-media exposure into chemical hazard
     scores for pollution prevention

L10  ANSWER 7 OF 11  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Management & design of process exhaust systems in an I/C manufacturing
     environment for emission minimization

L10  ANSWER 8 OF 11  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Performance-oriented packaging standards; changes to classification,
     hazard communication, packaging and handling requirements based on UN
     standards and agency initiative

L10  ANSWER 9 OF 11  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Air contaminants

L10  ANSWER 10 OF 11  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Preparation of aliphatic diisocyanates without using phosgene

L10  ANSWER 11 OF 11  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   dl-7-Azidocephalosporins
```

=> d l10 1 ti fbib abs

L10 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
TI Integrated process for preparing **phosgene** and from it **isocyanates**
AN 2004:100871 CAPLUS
DN 140:165773
TI Integrated process for preparing **phosgene** and from it **isocyanates**
IN Walsdorff, Christian; Fiene, Martin; Strofer, Eckhard; Harth, Klaus; Jacobs, Jan D.; Deberdt, Filip
PA BASF Aktiengesellschaft, Germany
SO U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2004024244	A1	20040205	US 2002-227865	20020827
			DE 2002-10235476A	20020802
DE 10235476	A1	20040212	DE 2002-10235476	20020802
WO 2004014845	A1	20040219	WO 2003-EP8430	20030730

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
DE 2002-10235476A 20020802

AB A process for preparing organic **isocyanates** comprises: (a) making available a first partial amount of chlorine, with the chlorine of this first partial amount having a content of free and bound **bromine** and iodine of <400 ppm; (b) making available a second partial amount of chlorine; (c) reacting the first and second partial amts. of chlorine with carbon monoxide to form **phosgene**; (d) reacting the **phosgene** from step (c) with one or more primary amines to form the corresponding **isocyanates** and hydrogen chloride; (e) separating off and, if necessary, purifying the **isocyanates** formed in step (d); (f) separating off and, if necessary, purifying the hydrogen chloride formed in step (d); (g) catalytically oxidizing at least part of the hydrogen chloride separated off in step (e) by means of oxygen to form chlorine; (h) separating off the chlorine formed in step (g) and using at least a partial amount of the chlorine which has been separated off as second partial amount of chlorine in step (b). A process flow diagram is presented.

=> d his

(FILE 'HOME' ENTERED AT 12:35:23 ON 29 JUN 2004)

FILE 'REGISTRY' ENTERED AT 12:35:51 ON 29 JUN 2004
E ISOPHORONE DIISOCYANATE/CN
L1 1 E3

FILE 'REGISTRY' ENTERED AT 12:38:33 ON 29 JUN 2004
L2 2357 BROMINE

```
L3         17997 ISOCYANATE
L4             7 L2 AND L3

     FILE 'CAPLUS' ENTERED AT 12:39:45 ON 29 JUN 2004
L5         47408 BROMINE
L6         66442 ISOCYANATE
L7           197 L5 AND L6
L8            67 L5(L)L6
L9         12353 PHOSGENE
L10           11 L7 AND L9

=> 'l1
MISMATCHED QUOTE ''L1'
Quotation marks (or apostrophes) must be used in pairs,
one before and one after the expression you are setting
off or masking.

=> l1
L11        4350 L1

=> l11/prep
FIELD CODES CANNOT BE CHANGED HERE
You may have tried to apply a field code to a term that already has a
field code.  You can only add a field code to a term that has no field
code appended to it.

=> l1/prep
           4350 L1
        3164945 PREP/RL
L12        1655 L1/PREP
                (L1 (L) PREP/RL)

=> l9 and l12
L13          18 L9 AND L12

=> d l13 1-18 ti

L13  ANSWER 1 OF 18  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Improved process for the preparation of di- and triisocyanates by
     continuous phosgenation of amines

L13  ANSWER 2 OF 18  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Production of isocyanates in the gaseous phase

L13  ANSWER 3 OF 18  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Improved procedure for the production of mono- and oligoisocyanates by the
     phosgenation of primary amines in the presence of catalytic amounts of
     monoisocyanates

L13  ANSWER 4 OF 18  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Evaporative removal of aliphatic and cycloaliphatic isocyanate monomers
     from polymeric residues

L13  ANSWER 5 OF 18  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Purification of aliphatic isocyanates

L13  ANSWER 6 OF 18  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Preparation of aliphatic polyisocyanates from polyamines and
     phosgene

L13  ANSWER 7 OF 18  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Preparation of isophorone diisocyanate
```

L13 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Preparation of diisocyanates without using **phosgene**

L13 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Preparation of isophorone diisocyanate from isophoronediamine

L13 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Process for preparing polyurethanes for coatings

L13 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Process for making aliphatic and cycloaliphatic polyisocyanates

L13 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Procedure for the production of (cyclo)aliphatic diisocyanates

L13 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Manufacture of isocyanates without **phosgene**

L13 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Extraction of pure diisocyanates

L13 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Multistep process for producing 3-isocyanatomethyl-3,5,5-trimethylcyclohexylisocyanate

L13 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Polyurethane-siloxanes

L13 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Continuous preparation of 1-isocyanato-3-(isocyanatomethyl)-3,5,5-trimethylcyclohexane

L13 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Isocyanates

=> d l13 5,6,9,11,12,17,18 ti fbib abs

L13 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Purification of aliphatic isocyanates
AN 1996:35267 CAPLUS
DN 124:201653
TI Purification of aliphatic isocyanates
IN Nozawa, Kaneo; Matsuhira, Nobuya; Naito, Taketoshi; Morinaka, Katsutoshi; Tabuchi, Toshihiko
PA Showa Denko Kk, Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07278088	A2	19951024	JP 1994-74915	19940413
	JP 2915784	B2	19990705		
				JP 1994-74915	19940413

AB The process comprises heating solns. of hydrolyzable Cl-containing crude aliphatic isocyanates and inert organic solvents at 140-270°, optionally mixing the crude isocyanates with the solvents at one time or gradually, distilling away higher amts. of the solvents than the weight of the isocyanates contained for ≥2 h, and optionally distilling the isocyanates from

residue. A solution of isophorone diisocyanate (I) and 423 ppm hydrolyzable Cl in o-Cl2C6H4 was distilled at 175-185° and 560-600 mm Hg for 3 h to distill away o-Cl2C6H4, then distilled at 127° and 2 mm Hg to give 36 ppm hydrolyzable Cl-containing I with Harzen color number ≤10.

L13 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Preparation of aliphatic polyisocyanates from polyamines and **phosgene**
AN 1995:992543 CAPLUS
DN 124:88109
TI Preparation of aliphatic polyisocyanates from polyamines and **phosgene**
PA Mitsui Toatsu Chemicals, Inc., Japan
SO Ger. Offen., 11 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19510259	A1	19950928	DE 1995-19510259	19950321
	DE 19510259	C2	19970904		
				JP 1994-50082 A	19940322
	JP 07309827	A2	19951128	JP 1995-42956	19950302
	JP 3201921	B2	20010827		
				JP 1994-50082 A	19940322
	US 5523467	A	19960604	US 1995-401807	19950310
				JP 1994-50082 A	19940322
	CN 1125718	A	19960703	CN 1995-104546	19950322
	CN 1062857	B	20010307		
				JP 1994-50082 A	19940322

AB In the conversion of an aliph polyamine to the polyisocyanate (e.g., m-xylylenediamine to m-xylylene diisocyanate) in an inert liquid medium, an inert gas is added to the reactor during the reaction to increase the yield of polyisocyanate and reduce the amount of **phosgene** required.

L13 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Preparation of isophorone diisocyanate from isophoronediamine
AN 1993:650204 CAPLUS
DN 119:250204
TI Preparation of isophorone diisocyanate from isophoronediamine
IN Suguro, Yoshio; Kawamura, Shigenori
PA Mitsubishi Chemical Industries Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05065265	A2	19930319	JP 1991-229135	19910909
				JP 1991-229135	19910909

OS CASREACT 119:250204
AB Isophorone diisocyanate (I) is prepared by reacting isophoronediamine or its hydrochloride salt (II) with **phosgene** in an inert organic solvent followed by distilling off the solvent and treating the crude product at 160-170° in an atmospheric of inert gas. Thus, II was treated with **phosgene** in decane and the reaction mixture was distilled to give crude I, which, after gel permeation chromatog., a product containing 4.2% impurities. This product was passed through a ball filter under the introduction of nitrogen gas at 1.9 L/h at 220° for 1 h to give a

product containing 3.8% impurities.

L13 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Process for making aliphatic and cycloaliphatic polyisocyanates
AN 1990:36699 CAPLUS
DN 112:36699
TI Process for making aliphatic and cycloaliphatic polyisocyanates
IN Thorpe, David; Smith, Richard Colin
PA Imperial Chemical Industries PLC, UK; ICI Americas, Inc.
SO Eur. Pat. Appl., 4 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 327231	A1	19890809	EP 1989-300602	19890123
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
				GB 1988-2674	19880205
	JP 01287128	A2	19891117	JP 1989-11764	19890120
				GB 1988-2674	19880205
	CN 1034712	A	19890816	CN 1989-100723	19890203
				GB 1988-2674	19880205

PATENT FAMILY INFORMATION:
FAN 1990:140004

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	BR 8900512	A	19891003	BR 1989-512	19890203
				GB 1988-2674	19880205
				GB 1989-1609	19890125

AB (Cyclo)aliphatic polyisocyanates are prepared without COCl2 by heating diamines with excess aromatic polyisocyanate boiling ≥20° above the b.p. of the desired isocyanate. Adding 6 g isophorone diamine over 20 min to 400 g polymethylenepolyphenylene isocyanate (I) (62% MDI) stirred at 120°, heating at 180° for 3 h, and distilling gave 60% isophorone diisocyanate and 40% I.

L13 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
TI Procedure for the production of (cyclo)aliphatic diisocyanates
AN 1989:231172 CAPLUS
DN 110:231172
TI Procedure for the production of (cyclo)aliphatic diisocyanates
IN Frosch, Hans Georg; Grave, Heinrich; Stutz, Herbert; Waldau, Eckart; Fuhrmann, Peter
PA Bayer A.-G., Fed. Rep. Ger.
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3714439	A1	19881110	DE 1987-3714439	19870430
	EP 289840	A1	19881109	EP 1988-106111	19880416
	EP 289840	B1	19901017		
	R: BE, DE, ES, FR, GB, IT, NL				
				DE 1987-3714439	19870430
	US 4847408	A	19890711	US 1988-185721	19880425
				DE 1987-3714439	19870430
	CA 1305165	A1	19920714	CA 1988-565025	19880425
				DE 1987-3714439	19870430
	JP 63280050	A2	19881117	JP 1988-104461	19880428

JP 08025984 B4 19960313
DE 1987-3714439 19870430

OS CASREACT 110:231172; MARPAT 110:231172

AB A procedure for the preparation of OCNRNCO [R = C1-15(cyclo)aliphatic hydrocarbon moiety] by phosgenation of the corresponding H2NRNH2 in the gas phase was characterized in that one: a) brings the gaseous diamine, optionally diluted with an inert gas or the vapors of an inert solvent, and COCl2, sep. heated to 200-600°, into reaction with each other in a cylindrical chamber at 200-600° without moving parts with the maintenance of a turbulent streaming into the reactor chamber; b) leads the gas mixture which continuously leaves the reaction chamber through an inert solvent which is kept at a temperature above the decomposition temperature of the carbamoyl chloride corresponding to the diamine; and c) subjects the diisocyanate dissolved in the inert solvent to a distillative work-up. In this manner, COCl2 and H2N(CH2)6NH2 reacted at 400° to give 98.0% OCN(CH2)6NCO.

L13 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN

TI Continuous preparation of 1-isocyanato-3-(isocyanatomethyl)-3,5,5-trimethylcyclohexane

AN 1975:86817 CAPLUS

DN 82:86817

TI Continuous preparation of 1-isocyanato-3-(isocyanatomethyl)-3,5,5-trimethylcyclohexane

IN Schmitt, Karl; Disteldorf, Josef; Reiffer, Johannes

PA Veba-Chemie A.-G.

SO Ger. Offen., 10 pp.
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2323299	A1	19741121	DE 1973-2323299	19730509
	DE 2323299	C3	19831208		
	JP 50052048	A2	19750509	JP 1974-50377	19740508
	JP 58035179	B4	19830801		
				DE 1973-2323299	19730509
	US 3916006	A	19751028	US 1974-467976	19740508
				DE 1973-2323299	19730509

AB 1-Isocyanato-3-(isocyanatomethyl)-3,5,5-trimethylcyclohexane (I) [4098-71-9] was continuously prepared without agglomeration of the suspension by phosgenation of 1-amino-3-(aminomethyl)-3,5,5-trimethylcyclohexane (II) [2855-13-2] in an inert solvent with excess COCl2 at 130-60° in previously prepared I. Thus, COCl2 [75-44-5] was passed into II in PhCl containing gaseous CO2 at 30°, the mixture passed into a reactor containing I in PhCl at 130° and then into a 2nd reactor for after reaction at 130° with passing of COCl2 in countercurrent through both reactors to give 98% I of Cl content 0.1%.

L13 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN

TI Isocyanates

AN 1973:431672 CAPLUS

DN 79:31672

TI Isocyanates

IN Edmondsen, John Neville; Hulse, Rae; Kerrigan, Vincent

PA Imperial Chemical Industries Ltd.

SO Ger. Offen., 17 pp.
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2249459	A1	19730419	DE 1972-2249459	19721009
				GB 1971-47795	19711014
	IT 967968	A	19740311	IT 1972-29815	19720928
				GB 1971-47795	19711014
	NL 7213291	A	19730417	NL 1972-13291	19721002
				GB 1971-47795	19711014
	BE 789809	A1	19730406	BE 1972-122871	19721006
				GB 1971-47795	19711014
	FR 2157485	A5	19730601	FR 1972-36382	19721013
				GB 1971-47795	19711014
	JP 48048419	A2	19730709	JP 1972-103161	19721014
				GB 1971-47795	19711014

AB Isocyanates were prepared by treating a mixture of (2) amines with COCl2. Thus, a mixture of cyclohexylamine and a polyphenylamine, prepared by reacting HCHO and PhNH2, was treated with COCl2 to give cyclohexyl isocyanate and polyphenyl polyisocyanate; a mixture of n-C8H17NH2 and n-C18H37NH2 gave n-C8H17NCO and n-C18H37NCO.

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	51.35	69.56

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-5.54	-5.54

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 12:50:55 ON 29 JUN 2004

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 13:14:04 ON 29 JUN 2004
FILE 'CAPLUS' ENTERED AT 13:14:04 ON 29 JUN 2004
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	51.35	69.56

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-5.54	-5.54

=> save temp all isocyansrch/l
L# LIST L1-L13 HAS BEEN SAVED AS 'ISOCYANSRCH/L'

=> d his

```
     (FILE 'HOME' ENTERED AT 12:35:23 ON 29 JUN 2004)

     FILE 'REGISTRY' ENTERED AT 12:35:51 ON 29 JUN 2004
                E ISOPHORONE DIISOCYANATE/CN
L1             1 E3

     FILE 'REGISTRY' ENTERED AT 12:38:33 ON 29 JUN 2004
L2          2357 BROMINE
L3         17997 ISOCYANATE
L4             7 L2 AND L3

     FILE 'CAPLUS' ENTERED AT 12:39:45 ON 29 JUN 2004
L5         47408 BROMINE
L6         66442 ISOCYANATE
L7           197 L5 AND L6
L8            67 L5(L)L6
L9         12353 PHOSGENE
L10           11 L7 AND L9
L11         4350 L1
L12         1655 L1/PREP
L13           18 L9 AND L12
                 SAVE TEMP ALL ISOCYANSRCH/L

=> color
         374523 COLOR
          39522 COLORS
L14      394562 COLOR
                  (COLOR OR COLORS)

=> l7 and lk14
              0 LK14
L15           0 L7 AND LK14

=> l7 and l14
L16           1 L7 AND L14

=> d l16

L16  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2000:455825  CAPLUS
DN   133:222175
TI   High Loading Cellulose Based Poly(alkenyl) Resins for Resin Capture
     Applications in Halogenation Reactions
AU   Chesney, Antony; Steel, Patrick G.; Stonehouse, David F.
CS   Department of Chemistry, University of Durham Science Laboratories,
     Durham, DH1 3LE, UK
SO   Journal of Combinatorial Chemistry (2000), 2(5), 434-437
     CODEN: JCCHFF; ISSN: 1520-4766
PB   American Chemical Society
DT   Journal
LA   English
RE.CNT  30    THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> pha
          10389 PHA
            974 PHAS
L17       11033 PHA
                  (PHA OR PHAS)

=> apha
```

```
          1160 APHA
             4 APHAS
L18       1163 APHA
                (APHA OR APHAS)

=> l7 and l18
L19          0 L7 AND L18

=> logoff hold
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    61.87      80.08

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -5.54      -5.54

 SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 13:17:19 ON 29 JUN 2004

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Welcome to STN International!  Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 13:38:01 ON 29 JUN 2004
FILE 'CAPLUS' ENTERED AT 13:38:01 ON 29 JUN 2004
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    62.31      80.52

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -5.54      -5.54

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    62.31      80.52

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -5.54      -5.54

FILE 'REGISTRY' ENTERED AT 13:38:12 ON 29 JUN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   28 JUN 2004  HIGHEST RN 700803-86-7
DICTIONARY FILE UPDATES:  28 JUN 2004  HIGHEST RN 700803-86-7
```

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

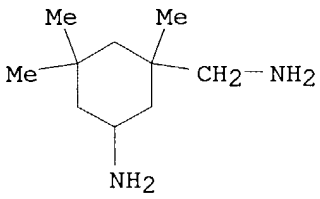
```
=> e isophorone diamine/cn
E1            1     ISOPHORONE DIACETOACETAMIDE/CN
E2            1     ISOPHORONE DIACETOACETAMIDE-TRIPROPYLENE GLYCOL DIACRYLATE C
                    OPOLYMER/CN
E3            1 --> ISOPHORONE DIAMINE/CN
E4            1     ISOPHORONE DIAMINE-1,1'-METHYLENEBIS(4-ISOCYANATOCYCLOHEXANE
                    )-POLYETHYLENE GLYCOL BLOCK COPOLYMER/CN
E5            1     ISOPHORONE DIAMINE-2-ETHYLHEXYL GLYCIDYL ETHER COPOLYMER/CN
E6            1     ISOPHORONE DIAMINE-IPDI-KURAPOL P 2010 BLOCK COPOLYMER/CN
E7            1     ISOPHORONE DIAMINE-IPDI-POLYOXYPROPYLENE-PLACCEL CD 220PL CO
                    POLYMER/CN
E8            1     ISOPHORONE DIAMINE-ISOPHORONE DIISOCYANATE-2,2,4-TRIMETHYL-1
                    ,6-HEXANEDIOL-2,4,4-TRIMETHYL-1,6-HEXANEDIOL COPOLYMER/CN
E9            1     ISOPHORONE DIAMINE-ISOPHORONE DIISOCYANATE-JEFFAMINE ED 900
                    BLOCK COPOLYMER/CN
E10           1     ISOPHORONE DIAMINE-ISOPHORONE DIISOCYANATE-PHTHALIC ANHYDRID
                    E COPOLYMER/CN
E11           1     ISOPHORONE DIAMINE-ISOPHORONE DIISOCYANATE-POLY(TETRAMETHYLE
                    NE GLYCOL)-TETRAMETHYLXYLYLENE DIISOCYANATE COPOLYMER/CN
E12           1     ISOPHORONE DIAMINE-ISOPHORONE DIISOCYANATE-PROPOXYLATED BISP
                    HENOL A-TEREPHTHALIC ACID-TRIMELLITIC ANHYDRIDE COPOLYMER/CN

=> e3
L20           1 "ISOPHORONE DIAMINE"/CN

=> d 120

L20  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   2855-13-2  REGISTRY
CN   Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl- (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Cyclohexanemethylamine, 5-amino-1,3,3-trimethyl- (7CI, 8CI)
OTHER NAMES:
CN   1,3,3-Trimethyl-1-aminomethyl-5-aminocyclohexane
CN   1-Amino-3,3,5-trimethyl-5-aminomethylcyclohexane
CN   1-Amino-3-(aminomethyl)-3,5,5-trimethylcyclohexane
CN   3,3,5-Trimethyl-5-aminomethylcyclohexylamine
CN   3-Aminomethyl-3,5,5-trimethylcyclohexylamine
CN   5-Amino-1,3,3-trimethylcyclohexanemethanamine
CN   5-Amino-1,3,3-trimethylcyclohexanemethylamine
CN   Araldite HY 5083
CN   Chemammina CA 17
CN   Epilox H 10-31
CN   IPD
CN   IPDA
CN   Isophorone diamine
CN   Luxam IPD
CN   Polypox IPD
CN   Rutadur SG
```

CN Vestamin IPD
FS 3D CONCORD
DR 177646-11-6, 129050-51-7, 25495-81-2, 50858-71-4, 52004-55-4, 45981-71-3, 52697-24-2, 116723-72-9
MF C10 H22 N2
CI COM
LC STN Files: ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, TOXCENTER, ULIDAT, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Conference; Journal; Patent; Report
RL.P Roles from patents: BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1226 REFERENCES IN FILE CA (1907 TO DATE)
612 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1226 REFERENCES IN FILE CAPLUS (1907 TO DATE)
8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	7.04	87.56

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-5.54

FILE 'CAPLUS' ENTERED AT 13:39:11 ON 29 JUN 2004

FILE COVERS 1907 - 29 Jun 2004 VOL 141 ISS 1
FILE LAST UPDATED: 28 Jun 2004 (20040628/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> l20/prep
          1226 L20
       3164945 PREP/RL
L21         369 L20/PREP
                  (L20 (L) PREP/RL)

=> formaldehyde
        130321 FORMALDEHYDE
           368 FORMALDEHYDES
L22     130427 FORMALDEHYDE
                  (FORMALDEHYDE OR FORMALDEHYDES)

=> l21 and l22
L23          13 L21 AND L22

=> aniline
          93295 ANILINE
          12073 ANILINES
L24       98085 ANILINE
                  (ANILINE OR ANILINES)

=> l23 and l24
L25           3 L23 AND L24

=> d l25 1-3 ti fbib abs

L25  ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Production of amine-formaldehyde condensation products
AN   2001:903322  CAPLUS
DN   136:38254
TI   Production of amine-formaldehyde condensation products
IN   Stroefer, Eckhard; Mueller, Christian; Sohn, Martin; Kaibel, Gerd
PA   Basf A.-G., Germany
SO   Ger. Offen., 8 pp.
     CODEN: GWXXBX
DT   Patent
LA   German
FAN.CNT 1
     PATENT NO.         KIND  DATE           APPLICATION NO.  DATE
     ---------------    ----  --------       ---------------  --------
PI   DE 10027778         A1   20011213       DE 2000-10027778 20000607
                                             DE 2000-10027778 20000607
AB   Amine-formaldehyde condensation products are obtained by
     conversion of at least one amine (A) with a mixture (B) of
```

poly(oxymethylene) glycol, HCHO monomer, methylene glycol, and water, characterized in that a fractionation of mixture B and the conversion with amine A takes place in a reaction column, whereby amine A and the portion of the fractionated mixture B reacting with the amine A move countercurrently with each other. This method is especially useful in producing
methylenedianiline from PhNH2 as amine A with reduced N-methylated byproducts.

L25 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
TI Centipede polymers grafted with hydrogenated block copolymers and polyalkylenes and gels thereof
AN 1999:722767 CAPLUS
DN 131:337863
TI Centipede polymers grafted with hydrogenated block copolymers and polyalkylenes and gels thereof
IN Wang, Xiaorong; Matsuse, Takahiro; Foltz, Victor J.; Mashita, Naruhiko; Hall, James E.; Toyosawa, Shinichi; Takeichi, Hideo
PA Bridgestone Corporation, Japan
SO Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 955329	A1	19991110	EP 1999-107308	19990419
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
			US 1998-73617 A	19980506
US 6054532	A	20000425	US 1998-73617	19980506
JP 11343320	A2	19991214	JP 1999-120365	19990427
			US 1998-73617 A	19980506
CA 2270372	AA	19991106	CA 1999-2270372	19990428
			US 1998-73617 A	19980506

AB The present invention teaches a method for enabling the formation of a high damping, soft polymer gel. The method includes: reacting a alkenylbenzene-maleimide copolymer with a maleated polyalkylene and a maleated hydrogenated block copolymer and an alkyl diamine grafting agent under substantially dry conditions sufficient to form a hydrogenated block copolymer-polyalkylene grafted poly(alkenyl benzene-co-maleimide) polymer product, and dispersing this product with an extender oil sufficient to form the gel.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
TI Two-component castor oil- and polyoxyalkylene-polyurethane adhesives dispensable in 1:1 volume-ratio.
AN 1995:990702 CAPLUS
DN 124:30670
TI Two-component castor oil- and polyoxyalkylene-polyurethane adhesives dispensable in 1:1 volume-ratio.
IN Trinks, Rainer; Stepanski, Horst; Colinas-Martinez, Jose; Ganster, Otto
PA Bayer A.-G., Germany
SO Eur. Pat. Appl., 8 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI EP 676427 A2 19951011 EP 1995-104284 19950323
EP 676427 A3 19960605
R: DE, FR, GB, IT
DE 1994-4411666 19940405
DE 4411666 A1 19951012 DE 1994-4411666 19940405
CA 2146076 AA 19951006 CA 1995-2146076 19950331
DE 1994-4411666 19940405
JP 07278518 A2 19951024 JP 1995-97665 19950331
DE 1994-4411666 19940405

AB Polyurethane adhesives dispensable in a 1:1 volume ratio consist of: (1) a polyisocyanate with a NCO content of 10-25 weight%, a maximum viscosity of 2500 mPa-s (at 25°), and 2-3 average functionality, (2) an aliphatic diol. with an OH number of >835 mg KOH/g, (3) a polyol with an average OH number of 20-200 mg KOH/g and 2-4 average functionality, and (4) at least one aliphatic or aromatic di- or trifunctional amine, with maximum mol. weight 300 g/mol. The total average OH number and maximum viscosity of components 2-4 are 200-290 mg KOH/g and 3000 mPa-s (at 25°), resp., and the diol, polyol, and amine components do not sep. from the mixture The compns. can also contain 0.005-2.0 weight%, based on total adhesive weight, of a suitable tertiary amine catalyst. The polyisocyanate component (component 1) and the diol-polyol-amine component (components 2-4) are packaged sep. and then dosed in a 1:1 volume ratio from sep. containers.

=> d his

(FILE 'HOME' ENTERED AT 12:35:23 ON 29 JUN 2004)

FILE 'REGISTRY' ENTERED AT 12:35:51 ON 29 JUN 2004
E ISOPHORONE DIISOCYANATE/CN
L1 1 E3

FILE 'REGISTRY' ENTERED AT 12:38:33 ON 29 JUN 2004
L2 2357 BROMINE
L3 17997 ISOCYANATE
L4 7 L2 AND L3

FILE 'CAPLUS' ENTERED AT 12:39:45 ON 29 JUN 2004
L5 47408 BROMINE
L6 66442 ISOCYANATE
L7 197 L5 AND L6
L8 67 L5(L)L6
L9 12353 PHOSGENE
L10 11 L7 AND L9
L11 4350 L1
L12 1655 L1/PREP
L13 18 L9 AND L12
SAVE TEMP ALL ISOCYANSRCH/L
L14 394562 COLOR
L15 0 L7 AND LK14
L16 1 L7 AND L14
L17 11033 PHA
L18 1163 APHA
L19 0 L7 AND L18

FILE 'REGISTRY' ENTERED AT 13:38:12 ON 29 JUN 2004
E ISOPHORONE DIAMINE/CN
L20 1 E3

```
     FILE 'CAPLUS' ENTERED AT 13:39:11 ON 29 JUN 2004
L21          369 L20/PREP
L22       130427 FORMALDEHYDE
L23           13 L21 AND L22
L24        98085 ANILINE
L25            3 L23 AND L24

=> l20/rct
          1226 L20
       2634689 RCT/RL
L26        206 L20/RCT
                 (L20 (L) RCT/RL)

=> l13 and l26
L27           13 L13 AND L26

=> lo9 and l27
              1 LO9
L28           0 LO9 AND L27

=> l9 and l27
L29           13 L9 AND L27

=> d 29 1-13 ti fbib abs
     13 ANSWERS ARE AVAILABLE.  SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):end

=> d l27 1-13 ti fbib abs

L27  ANSWER 1 OF 13  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Improved process for the preparation of di- and triisocyanates by
     continuous phosgenation of amines
AN   2003:470304  CAPLUS
DN   139:36959
TI   Improved process for the preparation of di- and triisocyanates by
     continuous phosgenation of amines
IN   Friedrich, Martin; Stutz, Herbert
PA   Bayer AG, Germany
SO   Eur. Pat. Appl., 6 pp.
     CODEN: EPXXDW
DT   Patent
LA   German
FAN.CNT 1
     PATENT NO.        KIND  DATE           APPLICATION NO.   DATE
     ---------------   ----  --------       ---------------   --------
PI   EP 1319655         A2   20030618       EP 2002-26860     20021202
     EP 1319655         A3   20031210
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
                                            DE 2001-10161384A 20011214
     DE 10161384        A1   20030618       DE 2001-10161384  20011214
     US 2003114705      A1   20030619       US 2002-316749    20021211
                                            DE 2001-10161384A 20011214
     JP 2003192658      A2   20030709       JP 2002-360733    20021212
                                            DE 2001-10161384A 20011214
     CN 1425647         A    20030625       CN 2002-157003    20021216
                                            DE 2001-10161384A 20011214
OS   MARPAT 139:36959
AB   Di- and triisocyanates R(NCO)n [R = (cyclo)aliphatic or aromatic C≤15
     hydrocarbon residue, with a proviso; n = 2, 3] are manufactured by continuous
     phosgenation of di- and triamines R(NH2)n (R, n as defined).  The vapors
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of di- or triamines, optionally diluted with inert gas or inert solvent vapors, are preheated to 200-600° and introduced into a static mixer in a tubular reactor, where they are mixed with preheated (200-600°) COCl2 which is introduced sep. The mixer has a specified geometry. Thus, isophorone diisocyanate was manufactured in 98.8% yield from 1:4:0.1 mol. mixture of isophoronediamine, COCl2 and N.

L27 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
TI Production of isocyanates in the gaseous phase
AN 2003:434519 CAPLUS
DN 139:22615
TI Production of isocyanates in the gaseous phase
IN Woelfert, Andreas; Mueller, Christian; Stroefer, Eckhard; Pfeffinger, Joachim; Weber, Markus; Knoesche, Carsten
PA BASF Aktiengesellschaft, Germany
SO PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003045900	A1	20030605	WO 2002-EP12930	20021119
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
			DE 2001-10158160A	20011128
DE 10158160	A1	20030612	DE 2001-10158160	20011128

AB The invention relates to a method for producing diisocyanates by reacting primary diamines with **phosgene** in the gaseous phase. Said method is characterized in that the reaction of diamine and **phosgene** occurs in a reaction channel, the internal dimensions of which have a width/height ratio of at least 2/1. With these dimensions the reaction chamber is useful for a longer period of time before it is necessary to clean the chamber of solid precipitate
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
TI Evaporative removal of aliphatic and cycloaliphatic isocyanate monomers from polymeric residues
AN 1999:635503 CAPLUS
DN 131:243741
TI Evaporative removal of aliphatic and cycloaliphatic isocyanate monomers from polymeric residues
IN Mason, Robert W.; Fadakar, Farhad; Bridges, Joseph P.; Butler, Larry K.; Keyvani, Majid
PA Arco Chemical Technology, L.P., USA
SO U.S., 9 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	US 5962728	A	19991005	US 1997-961800	19971031
				US 1997-961800	19971031

AB A process for isolating aliphatic (e.g., 1,6-diisocyanatohexane) or cycloaliph. isocyanate monomer(s) from a liquid or viscous paste composition containing polymeric isocyanate residues and the isocyanate monomer(s) comprises: (A) introducing the composition into the heating zone of a dispersing evaporative dryer which contains both a heating and a cooling zone; (B) heating the composition to a temperature sufficient to cause monomer evaporation
forming a gaseous stream of isocyanate monomer(s), which is condensed and collected, and a molten stream of polymeric residue byproduct; and (C) moving the molten residue stream to the cooling zone in the dispersing evaporative dryer to cause solidification, forming a solid polymeric isocyanate residue having an isocyanate monomer content of <1%.

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
TI Purification of aliphatic isocyanates
AN 1996:35267 CAPLUS
DN 124:201653
TI Purification of aliphatic isocyanates
IN Nozawa, Kaneo; Matsuhira, Nobuya; Naito, Taketoshi; Morinaka, Katsutoshi; Tabuchi, Toshihiko
PA Showa Denko Kk, Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 07278088	A2	19951024	JP 1994-74915	19940413
JP 2915784	B2	19990705		
			JP 1994-74915	19940413

AB The process comprises heating solns. of hydrolyzable Cl-containing crude aliphatic isocyanates and inert organic solvents at 140-270°, optionally mixing the crude isocyanates with the solvents at one time or gradually, distilling away higher amts. of the solvents than the weight of the isocyanates contained for ≥2 h, and optionally distilling the isocyanates from residue. A solution of isophorone diisocyanate (I) and 423 ppm hydrolyzable Cl in o-Cl2C6H4 was distilled at 175-185° and 560-600 mm Hg for 3 h to distill away o-Cl2C6H4, then distilled at 127° and 2 mm Hg to give 36 ppm hydrolyzable Cl-containing I with Harzen color number ≤10.

L27 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
TI Preparation of aliphatic polyisocyanates from polyamines and **phosgene**
AN 1995:992543 CAPLUS
DN 124:88109
TI Preparation of aliphatic polyisocyanates from polyamines and **phosgene**
PA Mitsui Toatsu Chemicals, Inc., Japan
SO Ger. Offen., 11 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19510259	A1	19950928	DE 1995-19510259	19950321

DE 19510259	C2	19970904		
			JP 1994-50082	A 19940322
JP 07309827	A2	19951128	JP 1995-42956	19950302
JP 3201921	B2	20010827		
			JP 1994-50082	A 19940322
US 5523467	A	19960604	US 1995-401807	19950310
			JP 1994-50082	A 19940322
CN 1125718	A	19960703	CN 1995-104546	19950322
CN 1062857	B	20010307		
			JP 1994-50082	A 19940322

AB In the conversion of an aliph polyamine to the polyisocyanate (e.g., m-xylylenediamine to m-xylylene diisocyanate) in an inert liquid medium, an inert gas is added to the reactor during the reaction to increase the yield of polyisocyanate and reduce the amount of **phosgene** required.

L27 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
TI Preparation of isophorone diisocyanate
AN 1995:986708 CAPLUS
DN 124:57000
TI Preparation of isophorone diisocyanate
IN Suguro, Yoshio; Katogi, Mamoru; Matsumoto, Masashi
PA Mitsubishi Kagaku KK, Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 07252200	A2	19951003	JP 1994-44139	19940315
			JP 1994-44139	19940315

AB The title compound (I) is prepared from isophoronediamine (II) using continuous multireactors having ≥2 direct-binding phosgenating baths followed by a hydrochloride salt-forming bath, in which II is treated with HCl in inert solvents in the hydrochloride salt-forming bath under high temperature, the slurry obtained is phosgenated in the phosgenating baths, then the hydrochloride salt-forming bath is cooled to continue reaction after the phosgenation giving no ppts. A reactor having 4 baths, in which HCl was fed into 1st bath at 100° and COCl2 was fed into 2nd and 3th baths at 130° and 140°, resp., was fed with a solution of II in decalin into 1st bath to give I. The same treatment was carried out after no precipitate formation at 78° in the 1st reactor to give I without precipitation

L27 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
TI Preparation of diisocyanates without using **phosgene**
AN 1994:701575 CAPLUS
DN 121:301575
TI Preparation of diisocyanates without using **phosgene**
IN Yanagii, Toyokazu; Itokazu, Teruo; Oka, Kenji
PA Daicel Chem, Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 06172292	A2	19940621	JP 1993-218747	19930902
			JP 1993-218747	19930902

AB Diisocyanates, useful for polyurethane manufacture (no data), are prepared by (a)

reaction of CO, O, and MeOH, (b) reaction of the resulting Me2CO3 with diamines in the presence of alkaline catalysts, and (c) pyrolysis of the resulting urethanes in the presence of catalysts at 1-700 Torr. Thus, N (sic), CO, and Ar/O were introduced to MeOH containing PdCl2, AcOCu and MgCl2 at 130° for 1 h and resulting Me2CO3 was treated with isophoronediamine and MeONa in MeOH at 70° for 6 h to give 99.5% isophorone dicarbamate, which was heated in dibenzyltoluene with Mn acetate under reflux at 10 Torr to give 74% isophorone diisocyanate.

L27 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
TI Preparation of isophorone diisocyanate from isophoronediamine
AN 1993:650204 CAPLUS
DN 119:250204
TI Preparation of isophorone diisocyanate from isophoronediamine
IN Suguro, Yoshio; Kawamura, Shigenori
PA Mitsubishi Chemical Industries Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 05065265	A2	19930319	JP 1991-229135	19910909
			JP 1991-229135	19910909

OS CASREACT 119:250204
AB Isophorone diisocyanate (I) is prepared by reacting isophoronediamine or its hydrochloride salt (II) with **phosgene** in an inert organic solvent followed by distilling off the solvent and treating the crude product at 160-170° in an atmospheric of inert gas. Thus, II was treated with **phosgene** in decane and the reaction mixture was distilled to give crude I, which, after gel permeation chromatog., a product containing 4.2% impurities. This product was passed through a ball filter under the introduction of nitrogen gas at 1.9 L/h at 220° for 1 h to give a product containing 3.8% impurities.

L27 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
TI Process for preparing polyurethanes for coatings
AN 1992:61691 CAPLUS
DN 116:61691
TI Process for preparing polyurethanes for coatings
IN Yagii, Toyokazu; Maruyama, Toshihide; Murata, Kiyokazu
PA Daicel Chemical Industries, Ltd., Japan
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9114725	A1	19911003	WO 1991-JP369	19910319
W: US				
RW: CH, DE, FR, GB, IT, NL				
			JP 1990-68643	A 19900319
			JP 1990-76098	A 19900326
			JP 1990-88046	A 19900402
			JP 1991-99876	A 19910201
JP 03275661	A2	19911206	JP 1990-76098	19900326
JP 03287570	A2	19911218	JP 1990-88046	19900402
JP 2997501	B2	20000111		
JP 05262715	A2	19931012	JP 1991-99876	19910201
JP 04211481	A2	19920803	JP 1991-52667	19910318

				JP 1990-68643 A119900319
	EP 477376	A1	19920401	EP 1991-906281 19910319
	R: CH, DE, FR, GB, IT, LI, NL			
				JP 1990-68643 A 19900319
				JP 1990-76098 A 19900326
				JP 1990-88046 A 19900402
				JP 1991-99876 A 19910201
				WO 1991-JP369 W 19910319
	US 5138015	A	19920811	US 1991-752481 19910906
				JP 1990-68643 A 19900319
				JP 1990-76098 A 19900326
				JP 1990-88046 A 19900402
				JP 1991-99876 A 19910201
				WO 1991-JP369 W 19910319

AB The title process comprises preparing a dialkyl carbonate without using **phosgene**, reacting the carbonate with a diamine to give a urethane, thermally decomposing the urethane to form a diisocyanate, and reacting the diisocyanate with a polyol in the presence of a Lewis acid and/or a protonic acid to give a polyurethane. The polyurethane forms coatings with good heat and weather resistance. Isophorone diisocyanate (I) containing 0.1 ppm Cl was prepared by reacting CO in turn with MeOH and isophoronediamine (II), and decomposing the product. Heating I 44.4, polycaprolactone diol (PCl 220) 200, and dibutyltin dilaurate 0.046 g at 120° for 3 h, adding II 16.8, iso-Bu2NH 0.4, iso-BuCOMe 38.0, and iso-PrOH 199 g, and heating 3 h at 50° gave a solution having viscosity 304 P and containing 30.8% solids and <0.05% free NCO.

L27 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
TI Procedure for the production of (cyclo)aliphatic diisocyanates
AN 1989:231172 CAPLUS
DN 110:231172
TI Procedure for the production of (cyclo)aliphatic diisocyanates
IN Frosch, Hans Georg; Grave, Heinrich; Stutz, Herbert; Waldau, Eckart; Fuhrmann, Peter
PA Bayer A.-G., Fed. Rep. Ger.
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3714439	A1	19881110	DE 1987-3714439	19870430
	EP 289840	A1	19881109	EP 1988-106111	19880416
	EP 289840	B1	19901017		
	R: BE, DE, ES, FR, GB, IT, NL				
				DE 1987-3714439	19870430
	US 4847408	A	19890711	US 1988-185721	19880425
				DE 1987-3714439	19870430
	CA 1305165	A1	19920714	CA 1988-565025	19880425
				DE 1987-3714439	19870430
	JP 63280050	A2	19881117	JP 1988-104461	19880428
	JP 08025984	B4	19960313		
				DE 1987-3714439	19870430

OS CASREACT 110:231172; MARPAT 110:231172
AB A procedure for the preparation of OCNRNCO [R = C1-15(cyclo)aliphatic hydrocarbon moiety] by phosgenation of the corresponding H2NRNH2 in the gas phase was characterized in that one: a) brings the gaseous diamine, optionally diluted with an inert gas or the vapors of an inert solvent, and COCl2, sep. heated to 200-600°, into reaction with each other in a cylindrical chamber at 200-600° without moving parts with the maintenance of a

turbulent streaming into the reactor chamber; b) leads the gas mixture which continuously leaves the reaction chamber through an inert solvent which is kept at a temperature above the decomposition temperature of the carbamoyl chloride corresponding to the diamine; and c) subjects the diisocyanate dissolved in the inert solvent to a distillative work-up. In this manner, COCl2 and H2N(CH2)6NH2 reacted at 400° to give 98.0% OCN(CH2)6NCO.

L27 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
TI Multistep process for producing 3-isocyanatomethyl-3,5,5-trimethylcyclohexylisocyanate
AN 1985:46407 CAPLUS
DN 102:46407
TI Multistep process for producing 3-isocyanatomethyl-3,5,5-trimethylcyclohexylisocyanate
IN Hellbach, Hans; Merger, Franz; Towae, Friedrich
PA BASF A.-G. , Fed. Rep. Ger.
SO Ger. Offen., 19 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3314790	A1	19841025	DE 1983-3314790	19830423
	US 4596679	A	19860624	US 1984-599821	19840413
				DE 1983-3314790	19830423
	EP 126300	A1	19841128	EP 1984-104353	19840417
	EP 126300	B1	19870401		
	R: BE, DE, FR, GB, IT, NL				
				DE 1983-3314790	19830423
	CA 1225997	A1	19870825	CA 1984-452345	19840418
				DE 1983-3314790	19830423
	JP 59205353	A2	19841120	JP 1984-78815	19840420
	JP 05073737	B4	19931015		
				DE 1983-3314790	19830423

AB Isophorone diisocyanate (I) [4098-71-9] is prepared without the use of COCl2 by condensing isophoronediamine (II) [2855-13-2] with urea [57-13-6] and alcs. in the presence of carbonate and/or carbamate esters and, optionally, catalysts to give bis(alkoxycarbonyl) derivs. of II, separating and recycling the alcs. and esters, and cracking the II carbamate derivs. in the vapor phase. Thus, stirring II 1700, urea 1200, and BuOH [71-36-3] 300 g with (BuO)2CO [542-52-9] 105, H2NCO2Bu [592-35-8] 117, di-Bu isophoronedicarbamate (III) [78581-44-9] 956, and BuOH 3288 g (recovered from previous runs) at 210-220°/6-8 bar with NH3 distillation, stripping volatiles, volatilizing III at 270-280°/30 mbar, and cracking the vapors at 410° gave a mixture of I 78, monoisocyanate monocarbamates 19, and III 3%, distillation of which gave 1472 g I with purity >99%. The distilled volatiles and residues, containing BuOH 3151, (BuO)2CO 102, H2NCO2Bu 113, and III 2066 g, were recycled.

L27 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
TI Continuous preparation of 1-isocyanato-3-(isocyanatomethyl)-3,5,5-trimethylcyclohexane
AN 1975:86817 CAPLUS
DN 82:86817
TI Continuous preparation of 1-isocyanato-3-(isocyanatomethyl)-3,5,5-trimethylcyclohexane
IN Schmitt, Karl; Disteldorf, Josef; Reiffer, Johannes
PA Veba-Chemie A.-G.
SO Ger. Offen., 10 pp.

CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2323299	A1	19741121	DE 1973-2323299	19730509
	DE 2323299	C3	19831208		
	JP 50052048	A2	19750509	JP 1974-50377	19740508
	JP 58035179	B4	19830801		
				DE 1973-2323299	19730509
	US 3916006	A	19751028	US 1974-467976	19740508
				DE 1973-2323299	19730509

AB 1-Isocyanato-3-(isocyanatomethyl)-3,5,5-trimethylcyclohexane (I) [4098-71-9] was continuously prepared without agglomeration of the suspension by phosgenation of 1-amino-3-(aminomethyl)-3,5,5-trimethylcyclohexane (II) [2855-13-2] in an inert solvent with excess COCl2 at 130-60° in previously prepared I. Thus, COCl2 [75-44-5] was passed into II in PhCl containing gaseous CO2 at 30°, the mixture passed into a reactor containing I in PhCl at 130° and then into a 2nd reactor for after reaction at 130° with passing of COCl2 in countercurrent through both reactors to give 98% I of Cl content 0.1%.

L27 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN
TI Isocyanates
AN 1973:431672 CAPLUS
DN 79:31672
TI Isocyanates
IN Edmondsen, John Neville; Hulse, Rae; Kerrigan, Vincent
PA Imperial Chemical Industries Ltd.
SO Ger. Offen., 17 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2249459	A1	19730419	DE 1972-2249459	19721009
				GB 1971-47795	19711014
	IT 967968	A	19740311	IT 1972-29815	19720928
				GB 1971-47795	19711014
	NL 7213291	A	19730417	NL 1972-13291	19721002
				GB 1971-47795	19711014
	BE 789809	A1	19730406	BE 1972-122871	19721006
				GB 1971-47795	19711014
	FR 2157485	A5	19730601	FR 1972-36382	19721013
				GB 1971-47795	19711014
	JP 48048419	A2	19730709	JP 1972-103161	19721014
				GB 1971-47795	19711014

AB Isocyanates were prepared by treating a mixture of (2) amines with COCl2. Thus, a mixture of cyclohexylamine and a polyphenylamine, prepared by reacting HCHO and PhNH2, was treated with COCl2 to give cyclohexyl isocyanate and polyphenyl polyisocyanate; a mixture of n-C8H17NH2 and n-C18H37NH2 gave n-C8H17NCO and n-C18H37NCO.

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